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FEE TRANSMITTAL

Complete if known
Application Number: 09/359,181
Filing Date: July 22, 1999
First Named Inventor: Grassy, et al.
Group Art Unit: 1631
Examiner Name: Lori A. Chow

Total Amt. of Payment: (1)+(2)+(3)= **$0**	Attorney Docket Number: 1028-1

METHOD OF PAYMENT (check one)

1. The Commissioner is hereby authorized to:

    [ ] Charge indicated fees

    [X] Charge additional fees

    [X] Credit overpayments

    to the account of DANN, DORFMAN, HERRELL & SKILLMAN

    Deposit Account Number __04-1406__

2. Payment enclosed:

    Check in the amount of $0

FEE CALCULATION

1. FILING FEE

Fee Description	Fee
Utility filing fee	____
Design filing fee	____
Plant filing fee	____
Reissue filing fee	____
Provisional filing fee	____
SUBTOTAL (1)	$0

FEE CALCULATION (continued)

ADDITIONAL FEES

Fee Description	Fee Paid
Surcharge-late filing fee or oath	____
Surcharge - late provisional filing fee or cover sheet	____
Extension for response within first month	____
Extension for response within second month	____
Extension for response within third month	____
Extension for response within fourth month	____
Notice of Appeal	____
Filing a brief in support of an appeal	____
Request for oral hearing	____
Petition to revive unavoidably abandoned application	____
Petition to revive unintentionally abandoned application	____
Issue fee	____
Petitions to the Commissioner	____
Petitions related to provisional applications	____
Submission of Information Disclosure Stmt	____
Recording each patent assignment per property	____
Other fee (specify) Advance Order (10 copies)	____
Other fee (specify)	____
SUBTOTAL (3)	$0

2. Claims

	Paid	Extr				Fee
Total Claims	10	-10	=	0	x 18 =	0
Independent Claims	2	-2	=	0	x 84 =	0
Multiple Dependent (First presentation)						

SUBTOTAL (2) __$0__

Submitted By:

Typed or Printed Name __Donald R. Piper, Jr__   Reg. Number __29,337__

Signature _____   Date __January 17, 2003__

Deposit Account User ID __04-1406__

EXPEDITED PROCESSING REQUESTED: RESPONSE AFTER FINAL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of | Examiner: Lori A. Clow

Gerard Grassy et al. | Group Art Unit: 1631

Serial No. 09/353,181 | Response to Paper No. 26

Filed: July 12, 1999 | Our File No. 1028-1

For: Computer-Aided Method for
the Provision,
Identification, and
Description of Molecules
Capable of Exhibiting a
Desired Behavior, More
Particularly in the
Pharmaceutical Sector, and
Molecules Obtained by Said
Method

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

I hereby certify that this correspondence is being deposited on January 17, 2003 with the United States Postal Service as first class mail in an envelope properly addressed to COMMISSIONER OF PATENTS AND TRADEMARKS, Washington, D.C. 20231.

_____
Date

_____
Robin Dolan

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. §1.116

The Official Action issued November 18, 2002 has been carefully reviewed. In view of the following remarks and evidence, favorable reconsideration and allowance of this application is respectfully requested.

At page 1 of the Official Action, the Examiner has maintained the rejection of claims 1, 4, 5, 8-10, and 18-20 under 35 U.S.C. §112, first paragraph as allegedly containing

subject matter which was not described in the specification in such a way as to enable one of skill in the art to make and/or use the invention. Specifically, the Examiner argues that the phrases "building", "selecting", and "modeling" without concrete active steps to eliminate undue experimentation do not enable the instant invention. This issue has been addressed previously by Applicants, most recently with the arguments filed with the response filed August 26, 2002. Previously, Applicants asserted and continue to maintain that the "building", "selecting", and "modeling" steps are all adequately described in the specification.

In response to the arguments filed August 26, 2002, the Examiner has simply restated the reasons for rejection made in the May 21, 2002 Official Action and brought the description of the TSAR software in to question. Specifically, the Examiner states that "nowhere in the specification is one appraised of the framework of this particular software such that one of skill in the art could ascertain specific calculations." Applicants disagree with the Examiner's requirement for a description of the framework of the software. Clearly, one of skill in the art at the time the instant application was filed would be capable of utilizing the **commercially** available TSAR software with reference guide. If needed, additional assistance and information could have been obtained from the distributing company Oxford Molecular Group (currently TSAR is distributed by Accelrys, Inc, San Diego, CA). Plainly, one of skill in the art would be capable of utilizing the software to determine molecular descriptors without undue experimentation and therefore the specification is enabling.

Additionally, the Examiner asserts that the citing of the TSAR software is unclear because "TSAR could refer to any of various versions of this software available." Again,

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Applicants disagree with the Examiner's position. Indeed, at
page 30, line 30 of the specification, TSAR version 2.31
available from the Oxford Molecular Group is specifically
referenced. Applicants also submit, however, that any version
of TSAR from the original version 1.0 to the current version
3.3 would be suitable for the instant invention. The same
formulas and algorithms are implemented in each version and
would therefore provide the same values for the descriptors of
a given molecule.

The Examiner also questions which "parameters are chosen
in order to generate the descriptors" and whether the
parameters are user-defined or set as default within the
software. Applicants respectfully point out to the Examiner
that molecular descriptors are not based on user-defined
parameters. As a skilled artisan would appreciate, molecular
descriptors are standard entities described in detail in
standard works. Select pages of the recent publication
"Handbook of Molecular Descriptors" (R. Todeschini and V.
Consonni (2000) Wiley-VCH; Exhibit A) are enclosed.
Specifically, the provided pages illustrate two descriptors,
the Balban indices (p. 21-23) and Kier shape descriptors (p.
248-250), which were standard descriptors at the time the
instant the instant application was filed (note the references
cited on pages 23 and 250). Just as there is only one way to
calculate the molecular weight of a given molecule, there is
only one way to calculate its Balban index or Kier shape
descriptor or any of the hundreds of other descriptors
available. To this end, Applicants have also enclosed select
pages, notably pages 1-13 and 1-18 to 1-22, from the "TSAR
Reference Guide" (Exhibit B) which describe the Balban indices
and Kier shape descriptors in the same manner as the "Handbook
of Molecular Descriptors." Additionally, Applicants point out
that other commercially available software such as any version

of MolConnZ (EduSoft, USA) capable of performing molecular descriptor calculations uses these standard descriptors (a list of software is provided in Appendix C of the "Handbook of Molecular Descriptors"). A skilled artisan would appreciate that any of these software packages capable of computing molecular descriptors could be utilized to perform the molecular modeling step of the invention and generate descriptors in a reproducible manner.

At page 4 of the November 18, 2002 Official Action, the Examiner also states that "without disclosure of the steps provided by said software...to build, select, or model, one of skill in the art would not know how to practice the invention." From this statement, the Examiner seems to suggest that the software package used to perform the molecular modeling is also used to perform the building of the combinatorial library and the selection of candidate molecules. Applicants respectfully submit that the Examiner is incorrect in this assessment. The TSAR software and other software capable of computing molecular descriptors are implemented only in the molecular modeling step of the instant invention. The arguments set forth hereinabove demonstrate how the description enables this step. The Examiner is referred to page 13, line 23 to page 15, line 22 and page 33, line 19 to page 34, line 6 for a detailed description of steps involved in the building of a combinatorial library. Moreover, software specific to assisting in the creation of the combinatorial explosion such as Combex and Legion are also provided. As with the TSAR software, the software for the creation of the combinatorial explosion would be easily accessed and employed by one of skill in the art. The Examiner is also referred to page 34, lines 7 to 17 for a detailed description of an example for the selection of

candidate molecules. All steps of the present invention are adequately described and enabled.

As further evidence that there is no ambiguity or lack of detail in the description of the invention of the instant application, Applicants mention that a similar description was published soon after the filing of this application (Grassy, G. et al. (1998) "Computer-assisted rational design of immunosuppressive compounds," Nature Biotechnology, 16:748-752; submitted in Information Disclosure Statement of May 3, 2002). Nature Biotechnology is a journal that is well known for its high standards of scientific quality and accuracy and, notably, no objection of the manuscript for inadequate description was made by a review panel of independent referees, i.e. ones of skill in the art.

Applicants contend the foregoing remarks and evidence clearly demonstrate that the description in the specification is enabling and that no undue experimentation would be required to practice the invention. Thus, Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. §112, first paragraph.

It is respectfully requested that the foregoing remarks and evidence presented herewith be entered in this application, since it is believed they clearly place the pending claims in condition for allowance.

The above listed rejection constitutes the entirety of the issues raised in the Official Action dated November 18, 2002. In light of the foregoing remarks and evidence, Applicants believe that the claims as they stand are in condition for ready allowance.
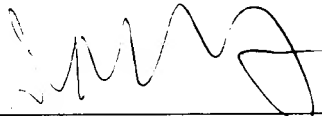
In the event the Examiner is not persuaded as to the allowability of any claim, and it appears that any outstanding issues may be resolved through a telephone interview, the Examiner is requested to telephone the undersigned attorney at the phone number give below.

Respectfully submitted,

DANN, DORFMAN, HERRELL AND SKILLMAN
A Professional Corporation

Donald R. Piper, Jr.
Registration No. 29,337

Telephone: 215-563-4100

-Enclosures: Exhibits A and B